ICT For Economic Growth In Andhra Pradesh, A State In India

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ABSTRACT

This paper discusses the role of Information and Communication Technology (ICT) for economic growth in Andhra Pradesh, a state in India. It looks at demographics of the State and discusses various initiatives by the State Government to transform into a knowledge economy. The paper looks at the various ways to use ICT for economic development and to bridge the digital divide.

INTRODUCTION – ANDHRA PRADESH

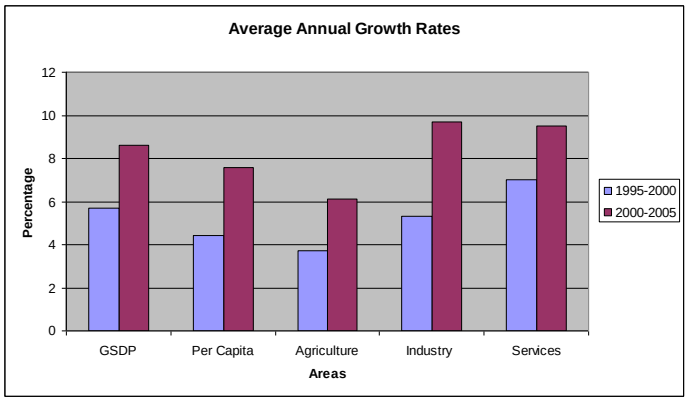
The State of Andhra Pradesh, located in the Southern part of India, is spread over 2.78 Lakh Sq.Kms. and has 23 Districts, 1100 Mandals and 25,000 Villages. The 5th largest and 5th populous State in India, has abundant natural resources and large mineral base.

The State with a population of over 7.55 Crores, has literacy rate of over 61%. It is termed the 'Rice Bowl' of India with 65% of the employed working in agricultural sector(1). It has over 2.3 Million Enterprises, employing over 6.4 Million employees, across the State (Director of Economics & Statistics, 1999). The service sector in the state accounts for nearly 43% of Gross State Domestic Product(GSDP) and employs 20% of the workforce. The table below summarizes the demographics of Andhra Pradesh.

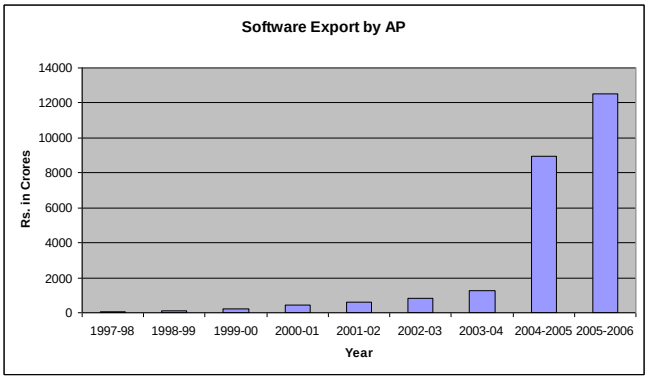
Demographies of Andhra Pradesh (Source 2001 Census - in Million)							
	Population	**Literacy**	**Employed**	**Cultivators**	**Agri. Labor**	**Ind. Worker**	**Other Worker**
Male	38.53	23.45	21.66	5.20	6.45	.71	9.30
Female	37.68	16.49	13.23	2.66	7.38	.93	2.26
Total	76.21	39.94	34.89	7.86	13.83	1.64	11.56

ANDHRA PRADESH A GROWING ECONOMY

The State, an agro based economy, over the past two decades, is fast transforming into an industrial State with the growth of industries like Pharmaceuticals, Textile, IT, Food Processing, Poultry etc.. It has taken many initiatives in the areas of Education, Infrastructure, Power, Governance etc., to create conducive environment for private investments in modern industry. The growth achieved through these initiatives is evident from the exhibit below:



Andhra Pradesh is the first Sate to create IT infrastructure and actively market it to MNCs for setting up their software development centers in the State. It is successful in making the Global Companies aware of the technical and intellectual manpower available in the State. Its first initiative of developing 1.0 Sq.Km. of area in Hyderabad, called Hitech City, as an International IT Hub has attracted many of the IT majors like Microsoft, Oracle, Baan, Deloittee, Nokia, Computer Associates, Motorola, HSBC, Qualcomm, Google etc., to setup their facilities here. The State currently has over 90,000 skilled personnel employed in IT & ITES sector and targets to add 60,000 every year. The State Government has special incentives to attract IT investments, that include, rebate in the sale of Government land to IT Companies, Sales Tax exemption for sale of Software in the State, concession in power tariff as applicable to other industries, exempting IT Software Industry from Zoning Regulations and investment subsidy for new IT hardware & software industries. The below graph is an indicator of the rapid growth the State has achieved in Software exports as a result of these initiatives.



As per Nasscom-KPMG survey the software export market is expected to touch to $50 billion by 2009 and the State Government has ambitious plans to capture 30 per cent of this business.

The State is among one of the high tele-density States with major Telecom Operators like BSNL, Tata Tele, Bharti, Hutch and Reliance Infocomm, delivering Mobile and Landline Services. Andhra Pradesh has achieved the distinction of being among the states with highest cable penetration rate in the country. According to estimates, 40% of the households have cable television access. Government has initiated a new project to get the broadband access available to every citizen upto village level. This initiative will make available bandwidth of the magnitude of 10 Gbps at District Head Quarters, 1 Gbps at Mandal Head Quarters and 100 Mbps at Villages.

In the past 5 years, State Government has under taken many initiatives in the areas of e-Governance and G2C Services. The eSeva Service Centers provide the convenience of paying utility bills, registration and renewal of licenses, passport applications, birth and death registrations etc.. The www.APonline.com, provides information on various Government departments. In Aug.'04, the Government launched RAJiv (Rajiv Internet Village) Programme with the aim to improve the quality of life of rural people by providing them with IT enabled education, health care, and better governance. As part of this program 6000 Kiosks are being setup in the rural areas under the management of self-help groups for providing electronic citizen services, Computer Literacy to at least one person in each family in rural areas and Broadband Connectivity upto villages by June, 2006. These kiosks will deliver G2C, G2B, B2B, B2C and C2C services.

In addition to the infrastructure initiatives, the State has also recognized the need for skilled technical manpower to cater to the needs of Global IT Companies choosing Hyderabad as their destination. The Goernment has permitted private sector investment in Technical Education, by increasing the number of Private Engineering Colleges to 164 with annual intake of 45,654 students and Master in Computer Application(MCA) Colleges to 212 with annual intake of 8,555 students. On its part, Government is strengthening the educational infrastructure in the rural areas by building new schools, hostels and through mid-day mean schemes to encourage more and more children to get educated and also reduce the percentage of drop outs.

Self Help Groups of Women (thrift groups) Programme has mobilized and organized 4.8 Million poor women in the rural areas into 370,000 groups. These women groups have built up a corpus fund of Rs.7.50 Billion consisting of their savings, borrowings from banks and Development of Women and Child in Rural Areas(DWCRA) revolving fund from government. The empowerment process has enabled the members of DWCRA and thrift groups in addressing poverty in all it's dimensions. DWCRA movement has contributed to the augmentation of incomes, improvement of nutrition, better child care of the poor women and enhanced the status of women in rural households. 33,000 Chief Minister's Empowerment of Youth(CMEY) groups are assisted to access self employment opportunities since 1996 with an investment of Rs. 34.2 Billion.

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) AS ENABLER OF GROWTH

Information and Communication Technology (ICT) broadly means the tools and activities that facilitate electronic means of processing, transmitting and displaying of information. ICTs are often spoken of in a particular context, such as ICTs in industry, education, health care, governance, libraries etc.

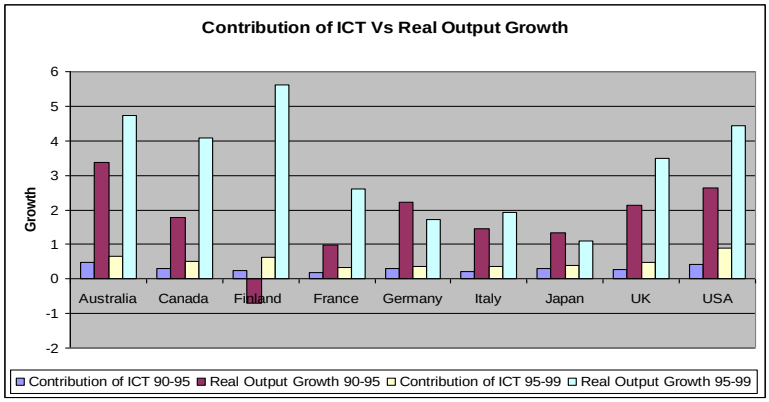
Economic growth is the increasing ability of the State to produce more goods and services. The higher level of ICT Capital stock per capita allows a typical economy to achieve a higher growth rate for given levels of growth in labor and capital inputs.

The ICT is being increasingly used both by the developed and developing countries world over to achieve higher economic growth. Let us look at ICT and significant results achieved world over though its application.

1. It provides access to information, reduces the need to travel and provides a means to undertake many activities that previously needed physical transport. The introduction of applications like email, online banking and e-commerce have significantly reduced the physical transportation costs of mailing, banking and purchase of goods.
2. It opens opportunities for entrepreneurship through the death of distance. Individuals can transact business online and access to markets and customers globally.
3. Virtual collaboration is possible through the means of instant communication and exchange of information.
4. The use of technology and applications to the areas of manufacturing and services will enhance the productivity of the individuals and workers.
5. Automation of processes and procedures reduces the time to deliver, enhancing the productivity and reduces the waiting time.

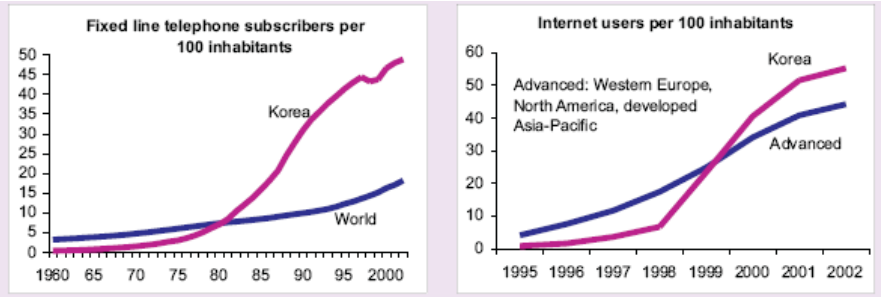
6. Applications in the areas of eGovernance enable easy access to forms, applications, rules, regulations, information, guidelines etc.. It also helps to reduce the Government cost in delivering these services to the Citizens.
7. It enables applications like distance learning, tele-medicine, audio/video conferencing, web conferencing etc.
8. Quality and reliable infrastructure to deliver ICT brings investment and job opportunities.
9. Creation of new jobs to manage the ICT infrastructure, applications and their distribution across the State.
10. Increase in private sector participation and investments due to increasing market for telecom services, education, health care etc..
11. Timely and accurate information to agriculture sector on whether, markets, demand for products, pricing, latest trends etc.
12. Rapid growth of SME and SOHO segments of business to address the growing demand, increased purchasing power and entrepreneurship.
13. Bridging the gender gap and increasing the opportunities for the women child and adult through access to information and opportunities.
14. Online availability and accessibility of information brings in transparency, accountability and ownership.
15. e-Justice systems can be setup for fair, accessible, timely and efficient delivery of justice to common man.
16. Access to information and sharing of knowledge brings in learning and innovation.

Most of the countries across the globe have recognised the importance of ICT to achieve higher growth and to bridge the digital divide. Australia, Canada, Finland, Germany, Italy, Japan, UK and USA, achieved remarkable growth through ICT. The table below shows the contribution of ICT to their growth in the recent past. As it is evident from the graph below, increasing contribution of ICT resulted in higher output growth.



Source: Coleccia and Schreyer(2001) cited by Kanamori et al(2004)

In Asia, South Korea is an example of economy that has transformed from under-developed to most developed nation in the last four decades through the application of ICT. A look at some of the indicators of this transformation, confirms the role of ICT.



(Source: Broadband Korea: Internet Case Study, Mar.2003 by ITU)

As the above graph shows the telephone penetration in South Korea moved from 0.36 per 100 inhabitants in 1960 to 48.8 in 2002 which is 3 times the world average. Similarly the number of internet users increased from less than 1 per 100 in 1995 to world's fifth largest market in 2002. The factors that helped Korea to achieve this growth are:

1. High literacy rate of 97.6
2. Developing of large content in local languages.
3. High school enrolment rate of 90 percent.
4. Moving the manufacturing base from textiles to chemicals, then machinery and later electronics.
5. Opening of telecom sector to competition.
6. Investment in telecom sector in the rural areas and latest technology.
7. Tariffs modified to enhance accessibility.
8. Utilisation of Cable TV infrastructure to deliver internet services.
9. Government and Private Sector partnership and participation.
10. e-Governance initiatives to provide information and encourage usage.
11. Setting up ecommerce infrastructure to encourage online transactions.

CONCLUSIONS

Andhra Pradesh has taken-up many initiatives to transform into knowledge based economy. The high literacy rate, growing manufacturing and service sector, availability of skilled manpower, private sector investments, good telecom, power and road infrastructure etc., are the good reasons for the State Government to formulate ICT policies and initiatives to achieve accelerated growth and bridge digital divide. The ICT Model and approach of South Korea distinctly suits the State. The Government needs to bring in policies that would not only create opportunities for employment but also encourage the entrepreneurial spirit that exists among the women and youth of the State.

REFERENCES

1. Industry Monitor – Andhra Pradesh, by, Confederation of Indian Industry.

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